

REMARKS

In the present Amendment, Claim 8 has been amended to recite that monomers at least containing 1,3-butadiene are polymerized through a solution polymerization and that the catalyst system consists of component (A), component (B) and/or component (D), component (C) and a conjugated diene monomer. Section 112 support for the amendment is found, for example, in paragraph [0049] and Examples of the specification. Further, Claim 8 has been amended to incorporate the subject matter of Claim 11. Claim 11 has been cancelled. Claim 17 has been amended to depend from Claim 8. No new matter has been added, and entry of the Amendment is respectfully requested.

Upon entry of the Amendment, Claims 1-8 and 13-18 will be pending.

At page 2 of the Action, Claims 8, 11, 17 and 18 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

As noted, Claim 8 has been amended to address the Examiner's concern. Withdrawal of the § 112 rejection is respectfully requested.

At page 3 of the Action, Claims 1-7 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Pedretti et al (U.S. 4,429,089, "Pedretti").

Claims 13-16 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pedretti, in view of Sandstrom et al (U.S. 6,046,266, "Sandstrom").

Applicants submit that the above two rejections should be withdrawn because Pedretti and Sandstrom do not disclose or render obvious the present invention, either alone or in combination.

In Pedretti, a 1,4-cis bond content and a vinyl bond content are measured by FT-IR.

However, Pedretti does not disclose the calculation method recited in present Claim 1.

In claim interpretation, the specification must be referred to. In the synthesis conditions of Pedretti, the cis content is less than 98% as calculated by the equation (IV) according to the present invention, accordingly, the polybutadiene disclosed in Pedretti is different from the polybutadiene claimed in present Claim 1. Accordingly, Claim 1 is not anticipated by or obvious over Pedretti.

Sandstrom is relied upon as teaching the benefits of including cis-1,4-polybutadiene rubber in tire tread and sidewall. Sandstrom does not make up for the deficiencies of Pedretti.

In view of the above, reconsideration and withdrawal of the rejections of Claims 1-7 and 13-16 based on Pedretti and Sandstrom are respectfully requested.

At page 5 of the Action, Claims 8, 17 and 18 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jang et al (U.S. 6,136,931, “Jang”).

Applicants submit that this rejection should be withdrawn because Jang does not disclose or render obvious the present invention.

Jang discloses a process for producing polybutadiene with high 1,4-cis content. The process comprises the step of polymerizing 1,3-butadiene in a non-polar solvent using a catalyst prepared by aging a mixture of (a) a neodymium compound, (b) an organoaluminum compound and (c) a boron trifluoride complex represented by a defined formula I or II, in the presence or absence of a small portion of conjugated diene compound (col. 2, lines 32-55).

The catalyst system recited in Claim 8 as amended consists of component (A), component (B) and/or component (D), component (C) and a conjugated diene monomer, but does not contain boron trifluoride.

In contrast, the catalyst system employed in Jang requires boron trifluoride. The catalyst system recited in Claim 8 as amended has a higher activity at low temperature than that of Jang, because the catalyst system recited in Claim 8 as amended does not contain boron trifluoride. Therefore, present Claim 8 as amended is not obvious over Jang.

In view of the above, reconsideration and withdrawal of the §103(a) rejection of Claims 8, 17 and 18 based on Jang are respectfully requested.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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